

# FORESTRY

## Leaflets

North Carolina Division of Forest Resources

FM-34

April, 2004

## A Guide to Implementing Neuse River Basin and Tar-Pamlico River Basin Riparian Buffer Rules for Forest Management Activities

Additional rule information is available on the 'Water Quality' portion of the N.C. Division of Forest Resources Web site [www.dfr.state.nc.us](http://www.dfr.state.nc.us) and the Non-Point Source (NPS) Planning Unit portion of the N.C. Division of Water Quality Web site <http://h2o.enr.state.nc.us/nps/> or by contacting staff from either agency, or DENR Regional offices.

### WHERE TO APPLY THESE RIVER BASIN RIPARIAN BUFFER RULES

- ✓ The Neuse River Basin and Tar-Pamlico River Basin 'Riparian Buffer Rules' apply to perennial and intermittent streams, ponds, lakes, and estuaries located in either river basin, and which are approximately shown on the most recent version of either an NRCS soil survey map or a USGS 1:24000 (7½ minute) quad topographic map.

✗ The Neuse River or Tar-Pamlico River Riparian Buffer Rules do not apply to the following waterbodies:

- ✗ Any "surface waters" that do not appear on either of the above named soils or topographic maps
- ✗ Any ephemeral streams (sometimes referred to as saddles, swales, gullies, or stormwater channels)
- ✗ Man-made ditches or canals that are not intended for water navigation or boat access
- ✗ Man-made ponds and lakes that are located outside natural drainage ways

➡ Seek advice from a professional trained in stream identification when determining 'buffer rule' applicability. Modified streams may look like ditches, but still require implementing these river basin riparian buffer rules. This Leaflet is not intended to provide legal advice or final interpretation of the Neuse River or Tar-Pamlico River riparian buffer rules.

On waterbodies where the river basin riparian buffer rules do not apply, *an SMZ is still required* to comply with the Forest Practices Guidelines Related to Water Quality (FPGs).

### REQUIRED RIVER BASIN RIPARIAN BUFFER WIDTH and ZONES

The buffer is made up of two "zones" that together equal a 50-foot wide strip of land:

Zone 1 - For streams:

Zone 1 begins at the most landward limit of the top of bank, or the rooted vegetation, and extends towards the land for 30 feet on all sides.

Zone 1 - For ponds, lakes, reservoirs:

Zone 1 begins at the most landward limit of the normal water level, or the rooted vegetation, and extends towards the land for 30 feet.

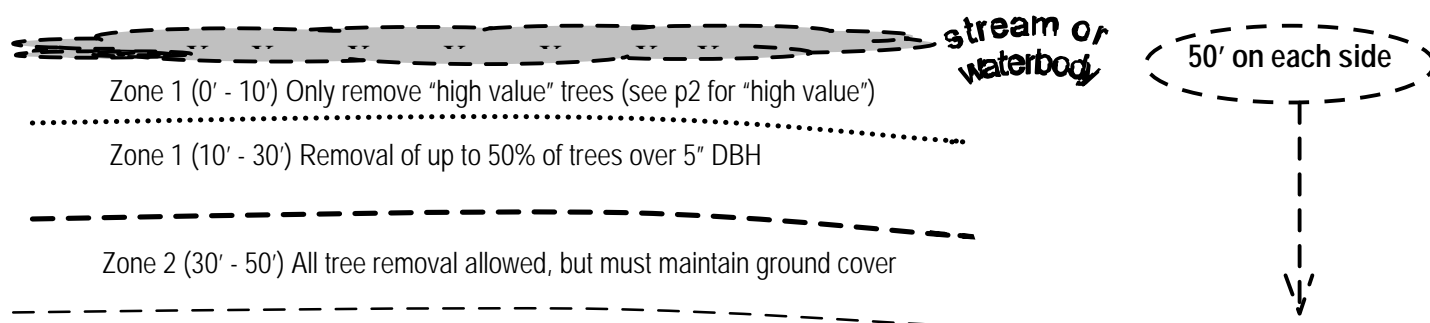
Zone 1 - For the 20 Coastal NC counties:

Zone 1 begins at the most landward limit of the following options, whichever is more restrictive (*see a,b,c below*) and extends toward the land for 30 feet:

- (a) the normal high water level, or (b) the normal water level, or
- (c) the landward limit of coastal wetlands as defined by NC Div. of Coastal Management

Zone 2 - For all sites:

Zone 2 begins at the outer edge of Zone 1 and extends outward 20 feet and shall consist of a stable, vegetated area. Ground cover must allow water infiltration and diffusion.



## **TIMBER HARVESTING IN THE RIPARIAN BUFFER**

**Selective timber harvesting is only allowed to occur in the 50 foot buffer if:**

- 1) A forest management plan for the property is written or approved by a Registered Forester, **or**
- 2) The property is enrolled in that county's present-use valuation program for forestry use.

### **All of Zone 1** (total of 30 feet with 'Inner' & 'Outer' areas defined below)

<b><u>Allowed</u></b>	Tree removal, provided that disturbance to soil and residual vegetation is minimized.
<b><u>Allowed with Restrictions</u></b>	<b>Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed, and maintained in accordance with FPG .0203</b>
<b><u>Not Allowed</u></b>	Soil disturbing site preparation activities

### **Zone 1 - Inner 10 feet** (land immediately adjacent to the stream or waterbody)

<b><u>Allowed</u></b>	Removal of individual "High Value" trees
<b><u>Allowed with Restrictions</u></b>	<ul style="list-style-type: none"> <li>"High Value" Pine trees are defined as any tree with a DBH of 14" and greater <b><u>or</u></b> a stump diameter of 18" and greater</li> <li>"High Value" Hardwood and Wetland trees are defined as any tree with a DBH of 16" and greater, <b><u>or</u></b> a stump diameter 24" and greater</li> </ul>
<b><u>Not Allowed</u></b>	<b>Removal of any tree with exposed primary roots visible in the streambank.</b> <ul style="list-style-type: none"> <li>It is recommended to mark/flag residual "leave" trees to make sure they are protected.</li> </ul>

### **Zone 1 - Outer 20 feet** (land adjoining the inner 10 feet area)

<b><u>Allowed</u></b>	<ul style="list-style-type: none"> <li>Limited amount of timber removal</li> <li>Remaining trees left standing should be as evenly spaced as possible.</li> </ul>
<b><u>Allowed with Restrictions</u></b>	Harvest of no more than 50% of the trees over 5" DBH <ul style="list-style-type: none"> <li>Re-entry for natural forest is allowed every 15 years.</li> <li>Re-entry for plantation forest is allowed every 5 years.</li> </ul>
<b><u>Not Allowed</u></b>	Removal of trees 5" DBH and smaller

### **All of Zone 2** (outermost 20 feet of the entire riparian buffer)

There are no tree harvesting or site-prep restrictions in Zone 2, so long as there is sufficient ground cover maintained to provide for diffusion and infiltration of water runoff. ***All activities must still comply with the N.C. FPGs.***

## **OTHER FORESTRY ACTIVITIES IN THE RIPARIAN BUFFER**

### **Forestry Activities Allowed in the Entire 50-foot Riparian Buffer**

- ✓ Individual trees may be treated to maintain or improve their health, form, or vigor.
- ✓ Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation. These practices must be approved by the Division of Forest Resources for a specific site. The Division of Forest Resources must notify the Division of Water Quality of all approvals.
- ✓ Removal of individual trees that are in danger of causing damage to structures or human life.

### **Forestry Activities Allowed with Restrictions, in the Entire 50-foot Riparian Buffer**

- ✓ Access roads and skid trails only allowed for temporary and permanent stream crossings, which are established in accordance with FPG .0203. Temporary stream crossings shall be permanently stabilized after any site disturbing activity is completed.
- ✓ Timber felling shall be directed away from the stream or waterbody.
- ✓ Skidding shall be directed away from the stream or waterbody and shall be done in a manner that minimizes soil disturbance and prevents rutting or the creation of channels.
- ✓ Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.
- ✓ Application of fertilizer only allowed as necessary for permanent stabilization. Broadcast application of fertilizer or herbicides to the adjacent forest stands shall be conducted so that the chemicals are not applied directly to or allowed to drift into buffer.

### **Forestry Activities Not Allowed in the 50-foot Riparian Buffer**

- ✗ NO logging decks or sawmill sites placed in the buffer.
- ✗ NO high intensity prescribed burns.